



# ICFRE - TFRI NEWSLETTER

July,2024-Sep.,2024 VOL:15



## From the Director's Desk.

I am pleased to mention that ICFRE-TFRI, Jabalpur is one of the nine regional institutes under the ICFRE to provide strong research support for sustainable development of forests and forestry sectors in central India.

I take pride in sharing the 15<sup>th</sup> Volume (July-September,2024) of ICFRE-TFRI Newsletter, showcasing significant research activities, events organized, participated and publications made during the period.

I hope this newsletter will be helpful for researchers, different stakeholders, and policy makers concerned with forestry research.

**Dr. H. S. Ginwal**  
Director, ICFRE-TFRI Jabalpur

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## Major Event

### Regional Research Conference-2024

The Regional Research Conference (RRC) 2024 was organized jointly by the ICFRE institutes - Arid Forest Research Institute (AFRI), Jodhpur, and Tropical Forest Research Institute (TFRI), Jabalpur, on the theme "Regenerating Landscapes: Forestry Interventions for Rehabilitation and Restoration of Degraded Lands and Stressed Ecosystems" on 12<sup>th</sup> September 2024 to discuss the future course of forestry research. The conference was chaired by Smt. Kanchan Devi, IFS, Director General, ICFRE, in the presence of the Chief Guest, Shri Arjit Banerjee, IFS, PCCF & HoFF, Rajasthan. Dr. Rajesh Sharma, DDG (Research), ICFRE, gave a brief introduction to the role of RRCs. Representatives of the Forest Departments of Chhattisgarh and Maharashtra attended the conference online.

Shri Pradeep Vasudev, IFS, PCCF and Director, SFRI, Jabalpur, attended the conference at ICFRE-TFRI, Jabalpur. Dr. Tarun Kant, Director, ICFRE-AFRI, welcomed the dignitaries, and Dr. H.S. Ginwal, Director, ICFRE-TFRI, apprised the gathering of the jurisdiction, research strengths, and activities of TFRI, Jabalpur.

The conference was also attended by the Group Coordinator (Research), all the scientists, officers, and technical officers from both institutes, including representatives from NIRANTAR verticals such as BSI, ZSI, SICON, WII, IIFM, as well as progressive farmers, industrialists, and forest department officials from the states of Madhya Pradesh, Chhattisgarh, Maharashtra, Gujarat, Daman & Diu, and Dadra & Nagar Haveli.







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## Memorandum of Understanding

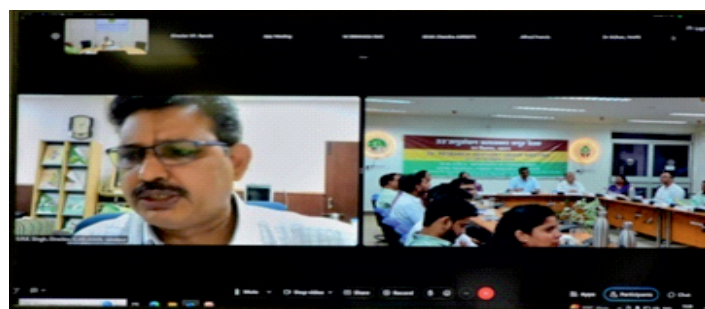
The Memorandum of Understanding for setting up the seventh Van Vigyan Kendra (VVK) at Indore was signed on 25th July, 2024, by the Institute's Director, Dr. Harish Singh Ginwal, and Shri Narendra Singh Sanodia, Chief Forest Conservator, Indore. The aim is to promote income generation for farmers, forest officers, and other beneficiaries in the Malwa region of Madhya Pradesh by using advanced forestry techniques. A training programme was also conducted at VVK, Indore, where Shri Aviral Aasiya, Scientist-D, delivered a lecture on the use of organic fertilizers.



## 33<sup>rd</sup> Research Advisory Group Meeting

The 33<sup>rd</sup> Research Advisory Group (RAG) Meeting was held on 23<sup>rd</sup> September 2024 at ICFRE-Tropical Forest Research Institute (TFRI), Jabalpur, to discuss new project proposals and review ongoing research. Dr. H.S. Ginwal, Director, welcomed participants and briefed them on the institute's mandate, various research activities carried out by the institute and collaborations, including with NIRANTAR verticals like BSI and WII. Dr. P.S. Rawat, ADG Research & Planning, ICFRE, stressed the importance of stakeholder-focused project deliverables.

Experts from state forest departments of Madhya Pradesh, Chhattisgarh & Maharashtra, CAMPA Chhattisgarh, NMPB, Delhi University, GGU Bilaspur, IGNTU Amarkantak, JNKVV, SFRI, NGOs, and progressive farmers discussed the the proposed projects in length.







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## SCIENTIST'S CORNER

### Testing of Eucalyptus and Casuarina clones in Chhattisgarh

Chhattisgarh State Forest Department, Raipur, is promoting tree cultivation under the Kisan Vriksh Mitra Yojna. Farmers have also shown keen interest in growing clonal eucalyptus, teak, bamboo, and other species. In response, the institute established a eucalyptus clonal trial with 102 clones with six replications at Godhi Nursery, Raipur Forest Division, in July 2024. Similarly, to assess the performance of Casuarina species in non-traditional growing areas like Central India, a block plantation of four elite clones of the species was established at Godhi Nursery, Raipur Forest Division. The Identification of stable and high performing clones will help in providing tested quality planting material to the tree growing farmers in the state.

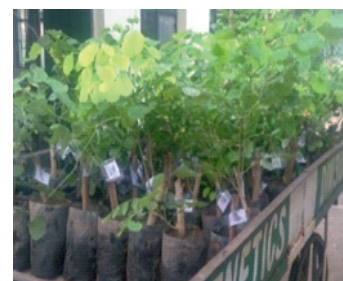


**Dr. Naseer Mohammad**  
Scientist-E  
Forest Genetics and Tree Improvement Division

### Propagation of difficult-to-root *Dalbergia latifolia* (Kala Shisham)

*Dalbergia latifolia*, a species recalcitrant to adventitious rooting, develops cellular competence for root formation with exogenous auxin treatment. Propagation of juvenile shoot cuttings obtained from annual hedging of 6-12-year-old progenies of superior genotypes, with a basal dip treatment of 5.0 mM IAA + 1.0 mM Boric Acid for 18-20 hours and propagation in a soil mix in polybags under ambient temperature and humidity in a partially shaded net house, yielded ≈30% rooting success (rooted, hardened plants), which is much higher than previous reports for difficult-to-root *Dalbergia latifolia*.

This propagation procedure is highly adaptable for use in forest nurseries to produce quality planting material for this valuable species. Propagation in a soil mix in polybags within a partially shaded open environment reduces the time required for plant hardening, making the plants ready for field transfer within three months. This allows them to be planted during the rainy season of the same year. Rooting of shoot cuttings in a soil mix substrate in polybags eliminates mortality losses during the transfer of rooted cuttings. The procedure is economical and ensures the production of hardened, quality plants in a short time frame of three months.



Rooted cuttings and hardened rooted plants of *Dalbergia latifolia*



**Dr. Pramod Tiwari**  
Scientist-D  
Forest Genetics and Tree Improvement Division

### Conservation Strategy for *Boswellia serrata* Roxb. (Salai)

A conservation strategy for *Boswellia serrata*, an endangered species, was proposed based on genetic diversity analysis using molecular markers. The study examined populations from 15 locations in Madhya Pradesh and Chhattisgarh, and an advisory note for conservation strategy was submitted to the state forest departments of both states.

- **In situ conservation:** This approach is suitable for areas with low *Boswellia* density and genetically similar populations, such as Balaghat, Jabalpur, Gwalior, Khandwa, and Sheopur in Madhya Pradesh, and Dhamtari, Narayanpur, and Sarguja in Chhattisgarh. Protecting these areas is crucial to preserve genetic diversity, as depletion in these regions would result in permanent genetic loss.





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**Ex situ conservation (reintroduction/artificial regeneration):** This is recommended for areas with low density but genetically related populations, such as Chhindwara-Chhatarpur, Damoh-Mandla, Gwalior-Sheopur/Shivpuri, and Panna-Shivpuri/Rewa. These populations would require protection of the habitat for securing natural regeneration apart from reintroduction/artificial from the same population or from the closest relative population.

Genetic analysis revealed that populations in Sarguja, Dhamtari, and Narayanpur are genetically related to those in Jabalpur, Balaghat, and Chhatarpur, in decreasing order, suggesting the need for conservation of the species across the state boundaries, including potential reintroduction.

**Dr. Pramod Tiwari**  
Scientist-D

Forest Genetics and Tree Improvement Division

## Improvement of *Tectona grandis* (Teak)

- (a) **Selection of Candidate Plus Trees:** Marked 191 Candidate Plus Trees (CPT) in Central India (M.P.-118, Chhattisgarh-43, Maharashtra-17, Odisha-13) based on phenotypic characteristics following comparison with check trees.
- (b) **Establishment of Progeny trial:** Established a Progeny trial of Teak in 2019 representing 29 half sib families (M.P.-05, Chhattisgarh-08, Maharashtra-08, Odisha-08).



Candidate Plus Trees



Progeny Trial

- (a) **Establishment of Seedling Seed Orchard (SSO):** Established a Seedling Seed Orchard (SSO) in 2019 representing 33 families (M.P.-13, Chhattisgarh-10, Maharashtra-10).
- (b) **Establishment of Germplasm bank:** Established a Germplasm Bank in 2020 representing 31 Accessions (M.P.-12, Chhattisgarh-09, Maharashtra-05, Odisha-05).
- (c) **Establishment of Clonal Seed Orchard (CSO):** Established a Clonal Seed Orchard (CSO) in 2021 through bud grafted plantlets representing 15 clones from 5 agro-climatic zones of Madhya Pradesh.



Seedling Seed Orchard



Germplasm Bank



Clonal Seed Orchard

**Dr. Pramod Tiwari**  
Scientist-D

Forest Genetics and Tree Improvement Division

## Development of Management practices for existing seed orchards of Teak

Most of the Seed Production Areas (SPAs) and seed orchards developed during 1992-2000 are producing seeds in low quantities mainly due to poor management. Based on observations of fruiting status, a review of existing management practices and experimental findings for inducing flowering and fruit production, management of existing seed orchards is recommended to enhance seed production from existing orchards. Key practices include selective opening of canopy by thinning/rouging of undergrowth, deformed and over matured trees leaving 100 to 120 trees per hectare area in SPAs, thinning operation for opening of crown in CSOs and SSOs, and performing cultural operations like weeding, pruning of lower branches, and sub-soiling associated root pruning in around 2-meter circle from tree base for increasing fertility status. Soil amendment with N+P or N+K in two split doses enhances seed production in nutrient deficient soil.







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## Impact of improvement activities on seed quality of Teak

Seeds from nine improved sites, selected from Madhya Pradesh and Chhattisgarh, were compared with seeds from unimproved sites located at least 2 km away for morphological and physiological parameters. The results revealed that SPA seeds are of better quality than those from CSO and SSO, both in terms of morphological parameters and germination. Seed germination from improved sites was 10-18% higher in Madhya Pradesh and 15-23% higher in Chhattisgarh compared to unimproved sites. In Madhya Pradesh, seedling quality in terms of height and basal girth was best for SPA Bahrai, followed by SPA Pondi and CSO TFRI. In Chhattisgarh, seedling quality was best for SPA Pali, followed by SPA Chatuabhauna, CSO Ghasipur, and SSO Ghasipur. After three months of growth, SPA seedlings showed better quality in terms of height and basal diameter. Thus, SPAs have proven to be an important source of moderately improved planting material, with no significant threat to the genetic diversity of future plantations.

**Dr. Pramod Tiwari**  
Scientist-D

Forest Genetics and Tree Improvement Division

## Forest Genetic Resources Conservation: Efforts of ICFRE-TFRI Jabalpur in Central India

Forest genetic resources (FGR) are critical to biodiversity, ecosystem resilience, and global environmental stability. However, deforestation, climate change, and overexploitation threaten their conservation. Preserving genetic diversity is essential for species adaptability, supporting forest-dependent communities, and maintaining ecological services like carbon sequestration and soil conservation. To address this, ICFRE-TFRI Jabalpur has established Central India's first ex situ seed gene bank, conserving over 300 germplasm accessions from 35 species at -20°C. This initiative is key to ensuring the long-term preservation of FGR and ecological sustainability



**Shri Manish Kumar Vijay**  
Scientist-B

Silviculture, Forest Management and Agroforestry Division

## OUTREACH PROGRAMMES

### Training on Seed and Nursery Technologies for the Conservation and Sustainable Management of Wild Fruiting and RET Species

ICFRE-Tropical Forest Research Institute (TFRI), Jabalpur in collaboration with the Chandrapur Forest Academy of Administration, Development & Management, Chandrapur, Maharashtra, conducted a two-days training workshop on seed and nursery technologies for the frontline staff of the Maharashtra Forest Department on 11–12 July, 2024 in hybrid mode under the ongoing AICRP on Seed Technology and Wild Fruiting Species, funded by CAMPA.

The workshop emphasized critical aspects of seed and nursery management, including seed collection, overcoming dormancy, pre-treatment methods, nursery input management, pest and disease control, and the selection of Candidate Plus Trees (CPTs). A total of 43 participants including Range Forest Officers, and Forest Guards from 11 forest circles in Maharashtra attended the program.







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## Awareness Program on Restoration of Ravine Land

ICFRE - Tropical Forest Research Institute, Jabalpur organized an awareness program on restoration of ravine land for about 60 villagers of local communities, Deputy Ranger and Forest Guard of Madhya Pradesh Forest Department at Useth village, Morena district of Chambal region on 30<sup>th</sup> July 2024. In the program, Mr. M. Rajkumar, Scientist and Mr. A.J.K. Asaiya delivered lectures in the presence of Associate Director of Research Regional Agricultural Research Center, Morena.



## Training on Bamboo Propagation and Hi-Tech Nursery Techniques

One week training program on “Bamboo Propagation and Hi-Tech Nursery Techniques” from 5<sup>th</sup> to 9<sup>th</sup> August, 2024 for 15 officers from Chhattisgarh Forest Department and Telangana Forest Development Cooperation was organized at ICFRE - Tropical Forest Research Institute, Jabalpur.

Dr. Fatima Shirin, Training Coordinator and Scientist-G, Genetics and Tree Improvement Division highlighted those 10 trainings conducted for Chhattisgarh and proposed 18 additional trainings on propagation techniques for the department by the institute.



## Training programs for officials of Chhattisgarh State Forest Department

A three days training on "Candidate plus tree selection of timber and non-timber species" was conducted during 21<sup>st</sup> to 23<sup>rd</sup> August, 2024 at ICFRE-TFRI, Jabalpur to train around 20 officials from Chhattisgarh Forest Department. Dr. H.S. Ginwal, Director ICFRE - TFRI enunciated importance of the course in developing quality planting material for increasing productivity and optimum land utilization in the country. Dr. Pramod Tiwari, Training Coordinator & Scientist, Genetics and Tree Improvement Division, shared the planned lectures and talks of training including that on Bamboo, Teak and other important commercial species, their management of pest and diseases etc.







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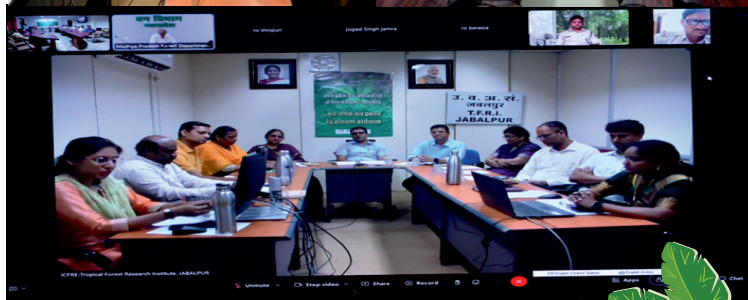
To encourage production of quality planting material of commercially important forestry tree species, ICFRE - Tropical Forest Research Institute Jabalpur organised 3 days training during 28<sup>th</sup> to 30<sup>th</sup> August, 2024 on "Establishment and management of progeny trials, seed production areas and seed orchards" under the guidance of Director Dr. H.S. Ginwal. Dr. Naseer Mohammad, Training Coordinator, Head & Scientist E, Genetics and Tree Improvement Division coordinated training for 20 officials from Chhattisgarh Forest Department to support increased productivity in Indian forests.



## Training on "Use of soil health cards for promoting soil test based nutrient management practices"

An online training programme on "Use of soil health cards for promoting soil test based nutrient management practices" was conducted at ICFRE - Tropical Forest Research Institute Jabalpur on 29<sup>th</sup> August, 2024 for 215 Forest Range and Deputy Range Officers of Madhya Pradesh Forest Department (MPSFD) under the guidance of PCCF & HoFF Shri Aseem Srivastava, IFS, MPSFD and Dr. H.S. Ginwal, Director ICFRE-TFRI.

Dr. Avinash Jain, Head and Scientist -F, Forest Ecology and Climate Change Division informed that the institute successfully trained officers from all 63 divisions of Madhya Pradesh to interpret and utilize Forest Soil Health Cards prepared by the institute to increase fertility of soil and productivity of their respective forest areas under the All India Coordinated Project for Preparation of Forest Soil Health Cards. Dr. V. P. Panwar, National Project Coordinator, Forest Research Institute, Dehradun emphasized the importance of soil health for vegetation and plantation







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## SIGNIFICANT VISITS/ DEMONSTRATION

Shri R. Y. S. Sandhu, Deputy Inspector General of Police, Sector Headquarters, ITBP, Bhubaneswar, Shri Mahendra Pratap, Commandant and other ITBP officers visited ICFRE - Tropical Forest Research Institute, Jabalpur on 9<sup>th</sup> August, 2024. Shri Sandhu and Shri Mahendra Pratap also planted Bael and *Cassia fistula* saplings in the Nakshatra Vatika, established at ICFRE-TFRI, Jabalpur.



32 trainee forest range officers of Chandrapur Forest Academy, Maharashtra visited ICFRE - Tropical Forest Research Institute, Jabalpur on 21<sup>st</sup> August, 2024 and learnt about bamboo production through tissue culture, non-wood forest products, insectary, botanical garden and other research works.



## CELEBRATION OF IMPORTANT DAYS

### 78<sup>th</sup> Independence Day

ICFRE – Tropical Forest Research Institute, Jabalpur celebrated 78<sup>th</sup> Independence Day. Dr. H.S. Ginwal, Director, of the Institute hoisted the national flag and addressed the gathering, highlighting the research achievements of the Institute in the past year. Appreciating the corruption free functioning of the Institute, he encouraged all the officers and staff to work for efficient revenue generation for the institute



### Ek ped Maa ke Naam campaign

A mass tree plantation campaign was carried out in the "Matarvan", established at ICFRE-TFRI, Jabalpur campus with participation from local residents, the Sarpanch of Neemkheda, retired and serving scientists, officers, employees and researchers of the institute through public participation. This tree plantation was done under the national campaign "Ek Ped Maa Ke Naam" and about 400 fruit, ornamental and forestry plants have been planted in this campaign.







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## Swachh Bharat Abhiyan

Dr. Fatima Shirin, under the leadership of Dr. HS Ginwal, Director, administered the Swachhta Pledge to all the scientists, officers and employees of the institute under Swachh Bharat Abhiyan and Swachhata Hi Seva.



Under Swachhata Hi Seva-2024 campaign, cleanliness drives were organized at different sites of Genetics and Tree Improvement division nursery, Silviculture division nursery and Establishment section of ICFRE - Tropical Forest Research Institute, Jabalpur.

Before

After



## Hindi Pakhwada 2024

As part of the Hindi Fortnight 2024, a series of programs were conducted at Tropical Forest Research Institute Jabalpur. The speech of Hon'ble Home and Cooperative Minister, Shri Amit Shah on Hindi Day and Diamond Jubilee Year of the State Language was shown to all employees of the institute. Acharya Sanjeev Verma, Salil Samay Vishwavani Sansthan; Professor Uma Tripathi, Ex Head of Department, Department of Journalism, Rani Durgavati University; Professor K.N. Shukla, Ex Head of Department, Department of Culture, Jabalpur delivered speeches on Hindi language and environment. An exhibition of Hindi books, literature and articles in the library of the institute were also arranged for scientists, officers and employees.

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Under the joint aegis of ICFRE-Tropical Forest Research Institute and the Zoological Survey of India Central Zone Regional Station (CZRC), Jabalpur, students from Jabalpur Engineering College performed a street play on the theme "Forest and Us." Dr. P.S. Bhatnagar, In-charge Officer of CZRD, was the chief guest.



## Blood Donation Camp

A voluntary blood donation camp was organized at ICFRE - Tropical Forest Research Institute, Jabalpur, in collaboration with Rani Durgavati Hospital (Lady Elgin), Jabalpur, Dr. Tushar Gupta, Blood Bank In-charge, Rani Durgavati Hospital lead the camp.







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## STAFF NEWS

Name of Scientist	Post	Date of Retirement
Dr. S.C. Biswas	Scientist-E	31.07.2024

## PUBLICATION

### Research Papers

- Khobragade, N. D. and Kanojiya, P. (2024). Effect of pre-treatment on seed germination and seedling growth of *Ailanthus excels* Roxb. *International Journal of Applied and Universal Research*, 11(4):16-20.
- Vijay, M. K., Tiwari, S., Kahar, L., Malviya, D., Aharwar, M., and Singh, N. (2024). Impact of seed size on germination parameters in *Flacourtia indica* (Burm.f.) Merr. *International Journal of Research in Agronomy*, 7(9):23-29. <https://doi.org/10.33545/2618060X.2024.v7.i9a.1432>.
- Vijay, M. K., and Singh, N. (2024). Nutritional composition, photochemistry, and pharmacognostic activities of *Flacourtia indica* (Burm.f.) Merr.: An important wild edible fruit species of central India. *International Journal of Advanced Biochemistry Research*, 8(7): 765-771. <https://doi.org/10.33545/26174693.2024.v8.i7j.1586>
- Vijay, M. K., Prajapati, N., and Singh, N. (2024). Assessment of ethnobotanical values of important wild edible fruiting species: *Semecarpus anacardium* L. and *Flacourtia indica* (Burm.f.) Merr. in Central India. *International Journal of Agriculture Extension and Social Development*, 7(SP-Issue 10):13-19. <https://doi.org/10.33545/26180723.2024.v7.i10Sa.1187>

### Book Chapter

- Mohammad, N., Dahayat, A. and Agrahari, H. (2024). Molecular Markers in the Management and Improvement of Forest Genetic Resources. In: Thomas T, D., Razdan, M.K., Kumar, A. (eds) *Biotechnological Approaches for Sustaining Forest Trees and Their Products*. Springer, Singapore. [https://doi.org/10.1007/978-981-97-4363-6\\_7](https://doi.org/10.1007/978-981-97-4363-6_7).

### Monograph

- *Semecarpus anacardium* L. F.: an important wild edible fruit species of Central India (ISBN 9788197183652)
- *Flacourtia indica* (BURM. F.) MERR.: an important wild edible fruit species of Central India (ISBN 9788197183645)

### Abstract

- Rai, N., Berry, N. and Singh, N. (2024). Marketing Channels of Agroforestry Produce Existing in the Bundelkhand Region of Madhya Pradesh. In abstract book (ISBN 978-93-340-7696-7) 6<sup>th</sup> International Conference on "Cutting Edge solutions in Science- Agriculture, Technology, Engineering and Humanities", Page no. 441-442.







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## Media coverage

**राज एक्सप्रेस**  
जयपुर, 9 अक्टूबर 2024

**चार प्रस्तावित परियोजनाओं के उद्देश्य, कार्यप्रणाली और वितरण पर मंथन**

जयपुर। भारतीय जंगल अनुसंधान एवं शिक्षण संस्थान (ICFRE) के अध्यक्ष डॉ. एन. एस. शर्मा ने एक बैठक में चार प्रस्तावित परियोजनाओं के उद्देश्य, कार्यप्रणाली और वितरण पर मंथन किया। बैठक में डॉ. शर्मा ने प्रस्तावों का विवरण देते हुए कहा कि ये परियोजनाएँ जंगल संरक्षण और वन्यजीव संरक्षण के लिए अत्यंत महत्वपूर्ण हैं।

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**ICFRE-TFRI organises 33rd Annual Research Advisory Group meeting**

Dr. N. S. Sharma, President of ICFRE, presided over the 33rd Annual Research Advisory Group meeting. The meeting was held to discuss the progress of various research projects and to provide recommendations to the management of ICFRE. The meeting was attended by members of the Research Advisory Group and staff of ICFRE.

**सिटी बुक**  
05 अक्टूबर, मंगलवार, 24 सितंबर 2024

**शोध गतिविधियों पर रहेगा फोकस**

जयपुर। भारतीय जंगल अनुसंधान एवं शिक्षण संस्थान (ICFRE) के अध्यक्ष डॉ. एन. एस. शर्मा ने एक बैठक में शोध गतिविधियों पर फोकस किया। बैठक में डॉ. शर्मा ने शोध प्रयोगों के प्रगति पर चर्चा की और भविष्य के शोध कार्य के लिए दिशानिर्देश दिए।

**नईदुनिया सिटी**

**परियोजनाओं के उद्देश्यों व कार्यप्रणाली पर किया विचार-विमर्श**

जयपुर। भारतीय जंगल अनुसंधान एवं शिक्षण संस्थान (ICFRE) के अध्यक्ष डॉ. एन. एस. शर्मा ने एक बैठक में परियोजनाओं के उद्देश्यों व कार्यप्रणाली पर विचार-विमर्श किया। बैठक में डॉ. शर्मा ने परियोजनाओं के महत्व और उनके लिए आवश्यक संसाधनों पर चर्चा की।

**जयपुर, 17 अगस्त 2024**

**सामूहिक वृक्षारोपण अभियान**

जयपुर। भारतीय जंगल अनुसंधान एवं शिक्षण संस्थान (ICFRE) के अध्यक्ष डॉ. एन. एस. शर्मा ने एक अभियान में सामूहिक वृक्षारोपण किया। अभियान में डॉ. शर्मा ने वृक्षारोपण के महत्व और इसके लिए आवश्यक साधनों पर चर्चा की।

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**प्रशिक्षण कार्यक्रम का उद्घाटन**

TFRI inaugurates training on 'Bamboo Propagation and Hi-Tech Nursery Techniques'

Dr. N. S. Sharma, President of ICFRE, inaugurated the training on 'Bamboo Propagation and Hi-Tech Nursery Techniques'. The training was held to provide knowledge and skills to the staff of TFRI on the latest techniques in bamboo propagation and nursery management.

**जयपुर, 6 अगस्त 2024**

**बॉस प्रसार व हार्डवेयर नर्सरी तकनीक प्रशिक्षण का शुभारंभ**

जयपुर। भारतीय जंगल अनुसंधान एवं शिक्षण संस्थान (ICFRE) के अध्यक्ष डॉ. एन. एस. शर्मा ने एक कार्यक्रम में बॉस प्रसार व हार्डवेयर नर्सरी तकनीक प्रशिक्षण का शुभारंभ किया। कार्यक्रम में डॉ. शर्मा ने प्रशिक्षण के उद्देश्य और इसके लिए आवश्यक साधनों पर चर्चा की।

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**ICFRE - Tropical Forest Research Institute: The 70th Independence Day was celebrated at ICFRE - Tropical Forest Research Institute**

Dr. N. S. Sharma, President of ICFRE, addressed the gathering on the occasion of the 70th Independence Day. He highlighted the achievements of the institute and the role of research in the development of the country.

**पत्रिका PLUS SUNDAY**  
जयपुर, 15 अक्टूबर 2024

**उष्ण कटिबंधीय वन अनुसंधान संस्थान पर्यावरण के साथी बनकर लगाए पौधे**

जयपुर। भारतीय जंगल अनुसंधान एवं शिक्षण संस्थान (ICFRE) के अध्यक्ष डॉ. एन. एस. शर्मा ने एक कार्यक्रम में पर्यावरण के साथी बनकर लगाए पौधे। कार्यक्रम में डॉ. शर्मा ने पर्यावरण के महत्व और इसके लिए आवश्यक साधनों पर चर्चा की।

**दैनिक भास्कर**  
जयपुर, 15 सितंबर 2024, 04

**रोपे फलदार पौधे**

जयपुर। भारतीय जंगल अनुसंधान एवं शिक्षण संस्थान (ICFRE) के अध्यक्ष डॉ. एन. एस. शर्मा ने एक कार्यक्रम में रोपे फलदार पौधे का शुभारंभ किया। कार्यक्रम में डॉ. शर्मा ने फलदार पौधों के महत्व और उनके लिए आवश्यक साधनों पर चर्चा की।

**जयपुर, 24 सितंबर 2024**

**वार्षिक अनुसंधान ब्लास्कर समूह बैठक आयोजित**

जयपुर। भारतीय जंगल अनुसंधान एवं शिक्षण संस्थान (ICFRE) के अध्यक्ष डॉ. एन. एस. शर्मा ने एक बैठक में वार्षिक अनुसंधान ब्लास्कर समूह बैठक आयोजित की। बैठक में डॉ. शर्मा ने अनुसंधान प्रयोगों के प्रगति पर चर्चा की और भविष्य के अनुसंधान कार्य के लिए दिशानिर्देश दिए।





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## Infrastructure and facilities available at ICFRE TFRI, Jabalpur

### National Insect Repository

- 750 species of insects.
- Recognized by National Biodiversity Authority (NBA) as National Repository



### Mycology Herbarium

- 4000 Fungal specimens systematically arranged and documented and 451 species of Fungi identified.
- Forest fungi identification service available



### Herbarium

- 800 plant specimens preserved in Herbarium .
- Forest Ecology & Climate Change Division provides services of plant identification on submission of specimens.



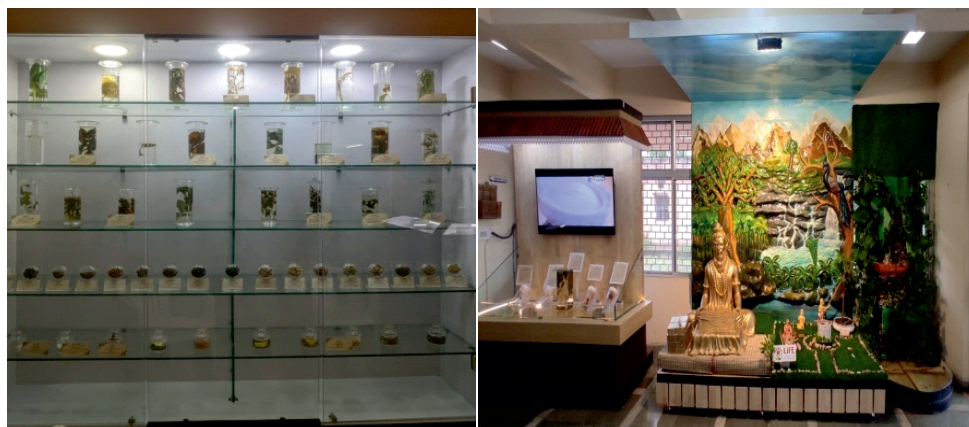
and transcription factors (MYB1 and MYB2) exhibits association







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**Museum cum Interpretation Centre**



## Technical Services Offered

Institute conduct Internship programmes for student s/stakeholders

### Internship Charges

Sl.No.	Training Period	Biotechnology /Molecular Biology		Other Disciplines	
		B.Sc./Undergraduate	M.Sc. Postgraduate	B.Sc./Undergraduate	M.Sc. Postgraduate
1.	One Week	Rs. 1,000=00	Rs. 2,000=00	Rs. 1,000=00	Rs. 2,000=00
2.	Fifteen days	Rs. 2,000=00	Rs. 4,000=00	Rs. 1,500=00	Rs. 3,000=00
3.	One Month	Rs. 3,000=00	Rs. 8,000=00	Rs. 3,000=00	Rs. 5,000=00
4.	Two Months	Rs. 5,000=00	Rs. 11,000=00	Rs. 5,000=00	Rs. 7,000=00
5.	Three Months	Rs. 28,000=00	Rs. 16,000=00	Rs. 7,000=00	Rs. 11,000=00
6.	Above three months to six months	Rs. 12,000=00	Rs. 22,000=00	Rs. 9,000=00	Rs. 16,000=00







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## Testing facilities available at ICFRE – TFRI, Jabalpur

S1. No	Parameter	Price in
1.	pH	100/- per sample
2.	EC	100/-per sample
3.	Organic Carbon (OC) /Organic Matter	100/-per sample
4.	Major nutrients (N, P, K, Ca, Mg, Na)	300/- each and 1500/- package
5.	Micronutrient (Mg, Ni, Zn, Fe, Co, Cr, Cu, Mn, B)	300/- each and 2000/- package
6.	Texture analysis	500/-per sample
7.	Bulk Density	150/-per sample
8.	Total soil Analysis (1 to 7)	4000/-per sample
9.	Dry matter / Moisture percentage	100/-per sample
10.	Plant testing – N, P, K, Ca, Mg, Na	250/- element and 1300 / -for all
11.	Plant identification charges	250/- specimen
12.	Bio- control agent -egg parasitoid card (25000 eggs /card)	300/- card
13.	Laboratory testing of pesticide ( biopesticide / insecticide) against insect defoliator/ white grub	20,000/- per defoliator
14.		40,000/- per white grub
15.	Field testing of insecticides against termites and insect defoliators	1,00,000/-
16.	Identification services for decay fungi/mould	1000/ species
17.	Identification of fungal specimen and its matching with herbarium	250/-per sample
18.	Micro photography of fungi	100/-per sample
19.	Seed germination and viability test	500/- per sample
20.	Seed purity tests	400/- per sample
21.	Moisture content of seeds	200/- per sample
22.	Determination of phenols ( if standards available)	600/- per sample
23.	Determination of tannins ( if standards available)	600/- per sample
24.	Determination of carbohydrates ( if standards available)	600/- per sample
25.	Determination of starch ( if standards available)	600/- per sample
26.	Determination of chlorogenic acid ( if standards available)	600/- per sample
27.	Determination of Protein ( if standards available)	600/- per sample
28.	Chemo profiling of medicinal plants with the help of HPTLC	2000/- for the first sample & 500/- per subsequent sample of the same sp.
29.	Leaf area Measurement	200/- per sample
30.	Estimation of a single marker constituent in plant extract	5500/- per sample for Academia / R &D, 10000/- per sample for Industry
31.	Ash Content	610/-per sample for Academia , 1100 / per sample for Industry
32.	Microscopic analysis	500/- per sample
33.	Genetic Fidelity testing	10,000/- per sample ( Minimum 10samples)







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## Services available for the Society

### Improved Varieties -Cost per plant- Rs. 100/- plant

S. No.	Species	Number of Plants Available
1.	<i>Rauvolfia serpentina</i> TFRI RS-1 (Sarpagandha)	200
2.	<i>Rauvolfia serpentina</i> TFRI RS-2 (Sarpagandha)	150

### Bamboos Species- Rs. 30/-plant

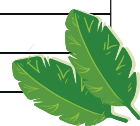
S. No.	Species	Number of Plants Available
1.	<i>Bambusa bambos</i> (Katang bans)	1350
2.	<i>Bambusa vulgaris</i> (var. green)	110
3.	<i>Bambusa nutans</i>	75
4.	<i>Dendrocalamus strictus</i> (Lathi bans)	940
5.	<i>Dendrocalamus longispatus</i>	100

### Tree Species and Medicinal Plants - Rs. 25/- plant

S. No.	Species	Number of Plants Available
1.	<i>Tectona grandis</i> (Teak, Sagoan)	200
2.	<i>Dalbergia latifolia</i> (Kala shisham, Rosewood)	200
3.	<i>Celastrus paniculatus</i> (Malkagini, Jyotishmati)	100
4.	<i>Plumbago zeylanica</i> (Chitrak)	100
5.	<i>Oroxylum indicum</i> (Shivnag)	50
6.	<i>Tamarindus indica</i> (Imli)	150

### Seeds and plants available for sale

Sl. No	Name of species		Rates	
	Common name	Scientific name	Seeds (Rs/kg)	Plants (Rs./Plant)
1.	Sagon	<i>Tectona grandis</i>	5000/-	30/- (Seed raised) 60/- (Tissue culture raised)
2.	Beejasal	<i>Pterocarpus marsupium</i>	5000/-	31/-
3.	Shisham	<i>Dalbergia latifolia</i>	7000/-	50/-
4.	Sisso	<i>Dalbergia sisoo</i>	3000/-	100/-
5.	Maida chhal	<i>Litsea glutinosa</i>	10000/-	50/-
6.	Chironji	<i>Buchanania lanzan</i>	8000/-	50/-
7.	Kullu	<i>Sterculia urens</i>	---	---
8.	Mahua	<i>Madhuca dongifolia</i>	5000/-	---
9.	Neem	<i>Azadirachta indica</i>	5000/-	50/-
10.	Imli	<i>Tamarindus indica</i>	3000/-	30/-
11.	Bel	<i>Aegle marmelos</i>	---	30/-
12.	Karanj	<i>Pongamia pinnata</i>	3000/-	30/-
13.	Khamer	<i>Gmelina arborea</i>	1000/-	50/-
14.	Haldu	<i>Adina cordifolia</i>	---	50/-
15.	Bamboo	Different Species	---	50/-
16.	Sarpagandha	Released Variety TFRI-RS-I, TFRI-RS-II	---	50/-
17.	Kaim/Mundi	<i>Mitragyna parvifolia</i>	3000/-	50/-
18.	Kumbi	<i>Careya arborea</i>	3000/-	50/-
19.	Jamun	<i>Syzygium cumini</i>	3000/-	50/-
20.	Khair	<i>Acacia catechu</i>	5000/-	---
21.	Babul	<i>Acacia nilotica</i>	3000/-	---







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## Plants Available for Sale at Silviculture, Forest Management Division, TFRI, Jabalpur

S. No.	Species	Number of Plants Available
1.	<i>Tinospora cordifolia</i> (Giloy)	100
2.	<i>Aegle marmelos</i> (Bel)	540
3.	<i>Cymbopogon citratus</i> (Lemon grass)	100
4.	<i>Oroxylum indium</i> (Shyonak)	50
5.	<i>Mimusopselengi</i> (Moulshri)	260
6.	<i>Asparagus racemosus</i> (Satawar)	100
7.	<i>Artemisia annua</i> (Davana)	30
8.	<i>Phyllanthus emblica</i>	25
9.	<i>Terminalia arjuna</i>	30
10.	<i>Moringa oleifera</i> L	1850
11.	Bamboo	600
12.	<i>Delonix regia</i>	3000
13.	<i>Cassia fistula</i>	1000
14.	<i>Pongamia pinnata</i>	550
15.	<i>Tamarindus indica</i>	820
16.	<i>Albizia lebbek</i>	5000
17.	<i>Syzygiumcumini</i>	540
18.	<i>Terminalia bellirica</i>	720
19.	Other Species	As per availability

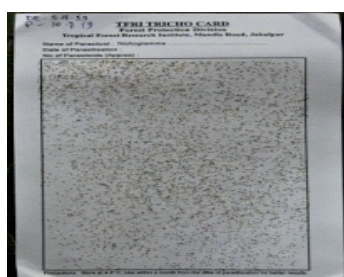


### Medicinal/trees species Plants- Rs. 30/- plant

- Prices and number may be varied as per the availability and season

### TFRI TRICHO-Card

- TFRI-TRICHOCARD developed using the parasitoid, *Trichogramma raoi*.
- It's an Ecofriendly bio-control method for managing teak defoliator & skeltonizer.
- 4 cards required for a hectare area **cards available @ Rs. 500/- per card**







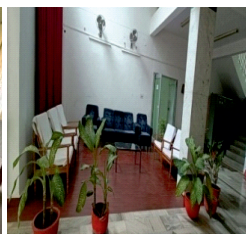
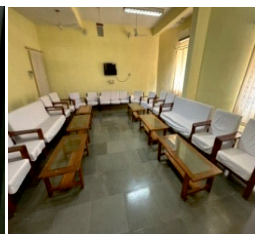
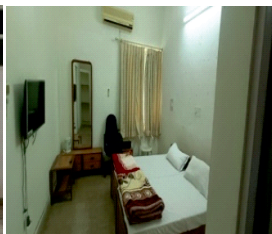
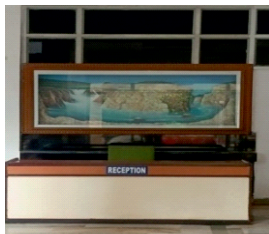
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## Guest House facilities and Charges

S.No.	Category of Person	Rent per day while on Govt. Duty (Rs.)		Rent per day while not on Govt. Duty (Rs.)	
		Rooms	Suits	Room	Suit
1.	a) Officials of ICFRE and institutes b) Consultants and research Fellow at ICFRE and its institutes and FRI Deemed Universities c) Officials and experts of MoEF&CC, New Delhi d) Officials of SFDs e) Ex- employees of ICFRE and Ex- Deputationist	150	200	200	300
2.	Family members of present /ex -employees a) ICFRE Employees b) ICFRE Deputationist			200	300
3.	a) Officials of Autonomous bodies, Universities under the FRI Deemed University b) Officials of Central/State Government other than SFDs	200	300	400	500
4.	Others (Non Governmental)			600	750

**Maintenance charges in addition to above rent will be applicable as follows:**

Accommodation type	Maintenance charge including A/C, Heater Charges
Room	200/-per day
Suit	250/- per day







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## ABOUT THE INSTITUTE

- ICFRE-Tropical Forest Research Institute, Jabalpur (Madhya Pradesh) came into existence in April 1988, to provide strong research support to sustainable development of forest and forestry sectors in central India comprising the states of Madhya Pradesh, Chhattisgarh and Maharashtra.
- It is one of the nine Regional institutes under the Indian Council of Forestry Research & Education, Dehradun (Uttarakhand).
- ICFRE-Skill Development Center, Chhindwara, came into existence on 30<sup>th</sup> March 1995. It was declared on 3<sup>rd</sup> January 1996, a satellite Centre of ICFRE-Tropical Forest Research Institute, Jabalpur.



### Core Research Areas

- ❖ Eco-restoration of Vindhyan, Satpura and Maikal hills and Western Ghats, Rehabilitation of mined areas.
- ❖ Development and Demonstration of Agroforestry Models
- ❖ Forest Protection
- ❖ Biofertilizers and Biopesticides
- ❖ Non-Wood Forest Products
- ❖ Biodiversity Assessment, Conservation and Development
- ❖ Sustainable Forest Management
- ❖ Planting Stock Improvement
- ❖ Climate Change & Environment Amelioration
- ❖ Forest Products Development

